

Stille (A)

INTRODUCTORY LECTURE

OF THE

ONE HUNDRED AND NINTH SESSION

OF THE

MEDICAL DEPARTMENT

OF THE

UNIVERSITY OF PENNSYLVANIA,

DELIVERED IN THE

NEW MEDICAL HALL,

OCTOBER 11, 1874.

BY

ALFRED STILLÉ, M.D.,

PROFESSOR OF THE THEORY AND PRACTICE OF MEDICINE, ETC.

—
PUBLISHED BY THE CLASS.
—

With the Compliments of
Alfred Stillé, M.D.

PHILADELPHIA:

COLLINS, PRINTER, 705 JAYNE STREET.

1874.

INTRODUCTORY LECTURE

OF THE

ONE HUNDRED AND NINTH SESSION

OF THE

MEDICAL DEPARTMENT

OF THE

UNIVERSITY OF PENNSYLVANIA,

DELIVERED IN THE

*Presented by
the Author,*

NEW MEDICAL HALL,

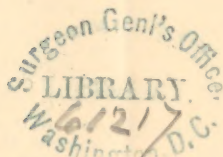
OCTOBER 11, 1874.

BY

ALFRED STILLÉ, M.D.,

PROFESSOR OF THE THEORY AND PRACTICE OF MEDICINE, ETC.

PUBLISHED BY THE CLASS.



PHILADELPHIA:

COLLINS, PRINTER, 705 JAYNE STREET.

1874.

CORRESPONDENCE.

At a meeting of the Medical Class of the University of Pennsylvania, held October 16, 1874, for the purpose of requesting a copy of Prof. Alfred Stillé's Introductory Address, Mr. A. W. Ransley, of Philadelphia, was called to the Chair, and Mr. M. S. Seip, of Easton, was appointed Secretary.

On motion it was

Resolved, That a committee, consisting of a representative from each State and country, be appointed to carry out the intention of the Class, and that Pennsylvania be entitled to one representative for every ten students.

UNIVERSITY OF PENNSYLVANIA, MEDICAL DEPARTMENT,
Philadelphia, October 19, 1874.

DEAR SIR: The undersigned were appointed a special committee, at a meeting of the Medical Class held on the 16th inst., to solicit a copy for publication of your able and eloquent Introductory Address, delivered in the new Medical Hall, October 12, 1874. A compliance with the request will be regarded as a manifestation of kindness towards us.

A. W. RANSLEY, Philadelphia.
THEO. F. LIVENGOOD, Pennsylvania/
J. H. McDANIEL, Texas.
ALBERT M. CURRY, Connecticut.
G. DE T. PIZA E ALMEIDA, Brazil.
A. MASON EVANS, West Virginia.

PROF. ALFRED STILLÉ, M.D.

3900 SPRUCE STREET, October 20, 1874.

GENTLEMEN: I have much pleasure in complying with the request contained in your communication of the 19th inst. Hoping that the good which the Address was intended to effect may be more perfectly secured in this manner than by the transient impression of its oral delivery,

With many thanks for the kind terms in which your request was made,

I remain, very faithfully,

Your friend,

ALFRED STILLÉ.

MESSES. A. W. RANSLEY, THEODORE F. LIVENGOOD, J. H. McDANIEL, ALBERT M. CURRY, G. DE T. PIZA E ALMEIDA, A. MASON EVANS.

COMMITTEE ON PUBLICATION.

CHARLES J. CARR, Pennsylvania.	RAFAEL A. RAMIREZ, Cuba.
EDWIN B. BERTOLET, "	EDWARD D. CHAPMAN, Massachusetts.
JAS. WILKES O'NEAL, "	SMITH COOPER, Delaware.
MOLTEN J. KLINE, "	EDWARD F. YATES, Illinois.
GEORGE R. YOUNG, "	THOMAS W. MOOREHEAD, Indiana.
BENJ. F. BAER, "	JOHN A. DE ARMOND, Iowa.
JOSEPH P. NEVIN, "	ALEXANDER B. STOOPS, Kentucky.
G. EDGAR DEAN, "	CHARLES B. GOLDSBOROUGH, Maryland.
ALFRED F. B. GERBERICH, Pennsylvania.	DAVID CERNA, Mexico.
ABRAM S. BRUBAKER, "	SIMON GREGORIAN, Asia.
H. CLAY BROWN, "	JOSEPH H. McDANIEL, Texas.
C. AMMON WISHART, "	GEO. A. C. MCINTOSH, Prince Edward's Is.
CHARLES K. LADD, "	GEORGE JOHN CLUNAS, Scotland.
FERNANDEZ TODD, "	ROBERT H. REED, Ohio.
THOMAS F. FINDLEY, "	A. MASON EVANS, West Virginia.
HERSEY H. MOTHERSBAUGH, "	FRANK A. WADDIL, South Carolina.
THEODORE F. LIVENGOOD, "	ARTHUR K. MACDONALD, New Jersey.
JEFFERSON D. CHRISTMAN, "	THOMAS H. ANDREWS, Georgia.
WILLIAM R. SITLER, "	JOHN G. CAMPBELL, Nova Scotia.
WM. MCD. MASTIN, Alabama.	GEORGE H. COBURN, New Brunswick.
JAMES H. CHANDLER, Barbadoes.	CHARLES E. MCKELVEY, New York.
G. DE T. PIZA E ALMEIDA, Brazil.	PARIS D. GILTNER, Oregon.
ALBERT HENRY DODGE, California.	SAM'L B. BOYD, JR., Tennessee.
JOEL G. JUSTIN, Rhode Island.	JAMES HAY, Virginia.
ALBERT M. CURRY, Connecticut.	AUGUSTUS R. ZOLLIFFER, N. Carolina.

M. S. SEIP, *Secretary*.

A. W. RANSLEY, *Chairman*.

INTRODUCTORY LECTURE.

GENTLEMEN:

It is a custom as universal as civilization to celebrate a new era in the history of a public institution, by assembling its friends together to rejoice with one another and unite in wishing it prosperity. It has fallen to my lot to-day to represent the Medical Faculty of the University in the dedication of its new Hall, and in their name and behalf to offer you an earnest and hearty welcome. Honor to the government of the University, and gratitude to its benefactors, that we are enabled to exhibit to you a building so noble in its proportions and complete in its appointments! I extend a cordial welcome to the young gentlemen who have come from so many and distant places to form our medical family. May I succeed in animating them with a love for their studies, and courage and perseverance in pursuing them! Let me hope to prevent them from wasting their time and strength in an ill-judged method of acquiring knowledge. The longer one teaches medicine the better acquainted does he become with the inherent difficulties of the subject, and the more deeply impressed with the grave responsibility which rests upon those who teach and on those who learn it. I shall, therefore, perhaps be pardoned for the practical character of my discourse, and for its barrenness of those rhetorical flowers which might have seemed more appropriate to a day of jubilee like the present.

The life of man may be measured by the years of a generation, or by the threescore years and ten which form the ordinary term of longevity. Animal life is limited by organic laws. A few years sooner, a few years later, it exhales into the unknown, and the organism it informed

returns to the dust out of which it was taken. But the life of nations, societies, and institutions has no fixed and determinate limits. It may be so ephemeral as to leave no trace upon the sands of time; or it may live for centuries, and, gaining strength by increase of years, seem destined to immortality. The judicious student of history is apt to discover that the longevity of institutions, like that of animal organisms, depends first of all upon their inherent vitality, the perfection of their structure, and the freedom and regularity of its action, and then upon the external circumstances to which it stands related. Whatever nation or institution develops its natural powers by a diligent cultivation of whatever will promote their growth tends to become strong and independent. It is not so much the form as the acts of its government that develop the resources of a nation or an institution. There have been tyrannical democracies and liberal monarchies; wisdom has spoken from the agora as well as from the academy; it has flourished under the tyranny of a Louis XIV. and perished under the brutal liberty of a French Republic. These extreme cases justify what common observation demonstrates, that, as regards at least the nations of Europe and their descendants in America, progress and safety have, on the whole, been best secured by the very system which is employed in the most perfect mechanical contrivances, a system in which springs and weights, power and resistance mutually restrict the action of one another. And what is true in mechanics and politics is equally true in every other sphere. Unfettered liberty rushes speedily into license, just as certainly as, on the other hand, despotism paralyzes action. In certain countries of Europe in which the institutions of science and learning have for centuries given but little evidence of life either in activity or in fruit, it is easy to trace their intellectual lethargy to political and ecclesiastical tyranny; and it is equally plain that in the freest nations, and especially in our own, an infinite amount of talent and labor is frittered away, and its results are shaken off like untimely fruit. Genius is often dwarfed in its growth for want of nurture and protection; often seems to have existed for no sufficient end, simply because it

lacked the hand to support and guide it, as well as to guard it from outward harm.

In whatever institution the forces which move it are duly co-ordinated and balanced, the most perfect results are obtained; whenever they are wanting, the results are apt to be irresolution in council, unsteadiness of action, immaturity of production, and an ephemeral existence. It has been admirably said that "the secret of free movement in the universe is equipoise." Every normal act in the physical and in the vital domain, and not less in the moral world, is the result of a balance of power. The planets revolve around the sun in virtue of the counterpoise of gravity and the centrifugal force; life, as Bichat expressed it, is the sum of the powers that resist death; the social system is the equilibrium between barbarism and civilization. Just as certainly is the most perfect system of laws, the wisest administration of public affairs, the most efficient method of education—not that which is intrinsically the best, but that which is in most perfect harmony with the condition of the people where it exists.

To thoughts like these the mind seems naturally led by the events of this day, in which we are assembled to inaugurate the new building of the Medical Department of the University of Pennsylvania. Who that is acquainted with the humble lodging which first sheltered its ambitious Faculty, could recognize in it the primal idea of the palace in which we are now assembled? Or who could discern in the modest means at their command for illustration, the germ of the unrivalled museum and apparatus which now complete through the senses the education of the mind? Or who that does not know the brief duration of the lecture-term of those days, the scanty materials for instruction which then existed either in books or in the personal experience of the professors, the really embryo condition of medical science at that time, can realize that now in every branch of medicine the teacher is absolutely encumbered by the vastness of the material he is obliged to prepare for his pupils, and constantly forced to regret that the duration of the courses has not been increased so as to correspond

with the grander proportions of the building in which they are delivered?

The successive changes which have led up to the present development of the school have been both material and intellectual. The former were more or less accidental; the latter were organic and normal, the legitimate result of a higher and wider culture. It is well known how for years the Medical Faculty panted for more breathing room, for wider space to hold and to display its treasures and for experimental research and teaching; and above all for a clinical institution in which it should be at home, and in which its own professors, or others in complete harmony with them, should carry to the bedside the traditional doctrines and practice of the University.

This longing has at last been satisfied. These objects, which for so long a time were regarded as remote possibilities, to be hoped for, worked for, prayed for, even, but hardly looked for, have now become realities. Yonder smiles the beautiful face of our hospital, offering health to the sick, soundness to the maimed, and to all sufferers protection and care; and here we are assembled in an edifice whose equal in extent, in architectural stateliness, and in adaptation to its objects, does not exist among the medical schools of this country, nor even, I believe, in Europe. By a singular chain of events the memorable translation of the University to its present site was accomplished. The first link in the chain was the need of the United States of a site for the national public offices required in Philadelphia. The formation of the second link depended upon the success of the Board of Trustees in convincing a government commission that no place was so well fitted for the purpose as the old site of the University. That being determined favorably, the possibility of further progress depended upon the purchase from the city of this ground at a moderate price; still later it depended upon the appropriation of a large sum of money by the Legislature of Pennsylvania, which, in its turn, was made contingent upon the subscription of an equally large sum by private liberality. If any

one of the links in this chain of contingencies had been broken, the whole scheme must have ended disastrously.

But not one of them was allowed to fail. Wise heads, and courageous, earnest hearts were leagued together to render the project successful. The Board of Trustees, to whom the active inception of the matter, and all the legal and administrative steps towards its completion, necessarily belonged, may well be proud to look upon the monument they have erected to their imperishable honor. The Provost, to whose official and personal influence in legislative bodies so much is due: The Professors in the Medical Department, some of whom labored with distinguished success in obtaining the funds for the erection and endowment of the hospital: The Hospital Professor of Clinical Medicine, whose earnest, judicious, and devoted espousal of the cause of that Institution entitles him to peculiar honor: The Committee and members of the society of the medical alumni, and others still, within the University as well as in the general public, who have contributed by their wise counsel, their devoted labors, and their generous gifts, to carry this grand scheme forward to the completion which you this day witness: To one and all of them this public acknowledgment is most justly due. Their efforts have been successful and their plans were consummated, not only because they were earnest and diligent, but because they were made in behalf of an institution whose long history warranted a belief in its permanency, and whose merits are attested by professional and scientific achievements which there is no one to question; and because the public felt assured that the efforts made in behalf of our medical school were prompted by no selfish or narrow spirit, and that its gifts in land, or money, or labor, or in whatever else, were sure to be wisely and honestly administered. They saw in this school the same elements of permanency which belong to the most stable of earthly institutions; the zeal of the Faculty for an enlarged and elevated curriculum, moderated and controlled by the very constitution of the University as well as by the condition of the medical profession generally; just as they might have seen, or may hereafter see, the conservatism of the

Faculty quickened by impulses proceeding from these very directions. And thus it came about that there was begot among the enlightened and at the same time serious and judicious classes of society, a firm faith in the vitality and durability of the school.

If I have seemed to dwell upon the idea that the Medical Department of the University owes its success and reputation to a wise balance of the powers which control it, let me, I beg, be excused, since I am convinced by the history of the times we live in, that the great defect of political, educational, and even scientific movements in the present day is—haste. The slow and deliberate progress of travellers in other days compared with the present lightning-like swiftness of their movements, illustrates in many points a similar contrast in the intellectual world. In the last generation it required a month to travel from Edinburgh to Naples, or from Boston to San Francisco, a journey which to-day is accomplished within a week. The end, to be sure, is reached; but in what is the traveller the better of his exploit, in what is he different for it, except by the exhaustion of his laborious and exciting journey? What knowledge has he acquired of the lands he has traversed? of their geographical and geological features, of their monuments of human enterprise, of their inhabitants, and their history, their customs, their intellectual and moral peculiarities? Nothing, or next to nothing; above all nothing exact and trustworthy. If the passion for rapid progress were confined to travelling, the evil would be comparatively small, since the traveller may repeat his journey again and again, and tarry wherever he will, and as long as it pleases him. But, my friends, the journey of life is made but once, and whoever has failed to make it aright has failed forever.

In every department of the busy world haste appears to be the rule. All are hurrying towards a goal, too often without regard to the means employed in reaching it. Everywhere men are making haste to be rich, and they struggle on through bogs and briers, and dark ways, and stony places, and if they do not perish by the way, perhaps at last embrace their golden idol. Or perhaps they are ambitious of social, professional,

or political distinction without the qualities that fit them for it or the virtues that deserve it, and they will "stoop to anything that's base," and barter honor, and even self-respect to obtain places for which they are unfit, and would be unworthy to fill.

I am no eulogist of the "good old times" because they are old, but because in many things they were good, and in none more so than in acting upon the inexorable law of nature, that all permanent things are slow in reaching their maturity, and that all rapid organic developments are feeble and short-lived in proportion to the rapidity of their growth. Strength in a complex structure depends upon the strength of its component parts, and if these are weak, and loosely put together, the building, the monument, the plant, the animal, or the mind will be proportionately feeble, and liable to destruction under the first strain or storm. It never has been and never will be that a mind hastily stuffed and overladen with knowledge will profit by it to grow in stature and strength. If it is not crushed at once into imbecility, it may perhaps flash into a precocious brilliancy, which will be followed by an endless night of star-lit mediocrity.

Now, gentlemen, you have come together here to be made physicians, and I entreat you let us have a clear understanding of what can and what cannot be accomplished. To make you physicians by conferring a diploma upon you after the usual examination is a duty which we shall be very happy to perform; but it will not rest with us alone to make you deserve that distinction. The more sagacious and thoughtful of those who receive it know best of all how unfit they are to perform the duties of medical practitioners, and even when experience has made them familiar with these duties, they grow every year less absolute in anticipating favorable results, and less confident in the efficacy of art as distinguished from nature. Will you allow me then to endeavor to present to you some notion of the place which medicine appears to occupy in the field of knowledge, the limits of its power, and the attractions which it possesses for the liberally cultivated mind.

Every profession or pursuit in which a man is long trained,

not only leaves its impress upon his mind, but more or less moulds it in a peculiar form. The more exclusively it is cultivated the more visible does its power become. So generally is this truth recognized that a shrewd observer will often be able to decide upon the occupation of a man from his bearing in society, and the manner as distinguished from the matter of his conversation. The dogmatic style of the theologian looking always to an infallible authority; the clear, well-arranged ideas of the jurist, who also is governed by authority, founded perhaps in nature, but artificial in form; the mathematician shut in a still narrower field hedged by abstract ideas; the study of all these when exclusively pursued tends to narrow the mind and dry the heart. Even the pure chemist, dealing only with the physical relations of atoms, their attractions, repulsions, combinations, and decompositions, regards as the highest expression of his science an algebraical formula which is abstract and lifeless. There is no human side to his science, and therefore, however it may enlighten the understanding, it leaves the moral sentiments uncultivated. But the charm of medical studies is that their tendency is the very opposite of this. They include the most varied and dissimilar elements, stretching from the abstract and impersonal on the one side, to the opposite and material limits of the field of knowledge; for the physician has to deal with the living body and the immortal soul, with the physical heart and the moral heart. Along this vast range there is hardly a science which he may not invite into the service of humanity; hardly an art which he may not make subservient to the health and happiness of mankind; hardly a branch of knowledge which he may not compel to be his help-mate in the prevention or the cure of disease. He cannot constantly watch the reactions of soul and body, as he alone is able to, without being impelled to study the great questions that lie at the foundation of human belief. He cannot witness the amazing uniformity in the relations of cause and effect without embracing the fundamental ideas of all legislation, human and divine. With the mathematician he can calculate the forces which man exhibits as a living machine, and with the chemist study the generation

of those forces by the conversion of dead matter into living tissue. This and vastly more it is the tendency of medical studies to do; it is all implicitly included in them, and of no others can the same be so truly said. If the physician often fails to attain the height which these statements imply, the fault, even in the case of the most gifted and zealous, is in his finite powers, the shortness of life, and the thousand human cares which harass his career. But none the less has he a field to explore incomparably wider and more varied and interesting than lies before any other searcher after knowledge, and so far as he can become acquainted with it will he find his own happiness increase and his power of doing good.

It need not be concealed that this knowledge is inexact in the precise proportion of its vastness. Medical science possesses no creed contained in a few sentences, nor strictly defined principles like law, nor a short list of axioms and postulates like mathematics. Such philosophical conciseness cannot be used in describing the phenomena of organic nature. Life manifestations are, indeed, hedged in by extreme limits which cannot be transgressed. A striking peculiarity of living beings is the unlikeness of individuals, since no two of them, whether leaves, or flowers, or features, or organs, or the functions, whether mental, moral, or physical, or the diseases which derange these organs and functions, are ever identical with one another. It is this unlikeness, this variety, that imparts to animated nature its highest charm. We admire and love it instinctively, while sameness of form and condition affect us with weariness, like monotony of sound. It almost seems as if this aversion to uniformity were implanted in us for the very purpose of stimulating us to search and learn forever, that we might stretch forward to grasp all knowledge in the world, and even beyond it in the world to come. The contemplation of nature discloses no such monotony; it does not exist in medicine, which embraces so large a portion of her realm. The physician may glean knowledge from every field. He discerns health or sickness in the sunshine and the shade; in the winds that breathe pestilence, or that come with healing under their wings. It is he that tells us which are the waters that

restore the sick, and which distil poisonous vapors; he that distinguishes the wholesome from the noxious plant; that discovers the virtues that lie hidden in the mineral, and extracts from it and from organic products the weapons with which he banishes suffering and triumphs over death. It is the physician whose investigations reveal the marvels of the animal structure, amazing even when it lies lifeless before him, putting to shame the utmost ingenuity of human mechanism; it is he who displays it in action, at every step and in every act of life performing miracles, converting bread and water into flesh and blood, and making of the air we breathe a consuming fire; it is he that by the skill which science gives him renders safe the often perilous voyage of the infant to the light of day, and guards the tender stranger from the earliest dangers of life. And what shall I say of the almost infinite field which is the province of medicine and surgery? of the science of disease as it reveals itself in the changes of function and structure? which treats of the wreck and ravages that disease leaves behind it, and which renders intelligible the causes of the catastrophe? of the voices of the suffering organs which, though inarticulate, are none the less significant to the skilful ear? of the visible deformities, distortions, displacements, and mutilations which, as well as diseases, mar the symmetry and hinder the uses of the body? Or shall I speak of the physician no longer as a naturalist or a pathologist, but as a man, whose moral, not less than his intellectual nature, must be exercised in his calling? What are drugs and what are ingenious instruments but so many material agents, essential, perhaps, for the cure of the sick; but what is their power, when used alone, compared with that they display when vivified and potentialized by the spirit of humanity guiding a keen insight into the secret places of the heart? Hope is often no less enlivening than the most stimulating elixir; sympathy no less soothing than the gentlest anodyne; counsel no less strengthening than the most powerful tonic; and often nature, sustained and cheered by these moral influences, triumphs over obstacles which no mere medicinal assistance would have enabled her to surmount. ¹

Is there, then, anything the physician need lack to realize all the conceptions of his understanding, and to satisfy all the yearnings of his heart? Surely, nothing. It, therefore, behooves every one who is preparing for the life of a physician to feel, at every step of his progress, how vast a field of knowledge he has undertaken to explore, how rich and varied are its products, and how exalted is the mission to which he is destined.

In the remarks that have been made respecting the relations of science and art in medicine, I was, perhaps, less explicit than was proper, for upon a right apprehension of these relations must depend in a great measure the fruitfulness of your professional studies, and the solid merit of your career as practitioners. Let me endeavor briefly to state the matter more clearly.

To one who is not content with the simple observation of facts, but seeks to learn their causes and mutual relations, it seems at first a dark problem how science and art shall be made to harmonize with one another. He knows that perfection in the one should correspond to perfection in the other, since both are essentially but different modes of the same truth; that science should be prepared to explain the phenomena produced or observed by art, and that art, in like manner, should be competent to reduce into practice all the conclusions of science. It would, indeed, be so if scientific laws were absolute, and if the power of art to execute were perfect. But science in the abstract deals only with abstract ideas, and its laws are absolute only so long as they relate to such ideas. The substance, form, bulk, and other qualities of bodies in science are abstract notions, not concrete facts. The genus or species of the naturalist has no precise limitation in nature; nor has any simple substance, so called, nor any compound body, the precise constitution which in science it is assumed to possess. Thus in every statement or argument into which such elements enter, allowance must be made for departures from the theoretical idea of them. These statements suffice to illustrate the general proposition that every applied science is at best but a science of approximations; that absolute truth in

it is impossible, and, therefore, that the art which corresponds to such science must possess not only its own inherent imperfections, but those also which belong to the science which illustrates and explains it.

But if even in the exact physical sciences laws are never absolute, how infinitely less so must those be which govern living beings even in their physical conditions and relations, to say nothing of those which regulate their mental and moral existence. The laws of this domain readily elude our intellectual grasp; its problems cannot be precisely defined; within it we are compelled to accept conclusions which cannot be explained, and act under the guidance of experience more than under the control of law. So far as medicine is really a science it does not solicit but commands our belief. It does not permit us to hold opinions about the constitution of the body, nor about the mechanical elements of the various functions, either in health or disease. On the other hand, it leaves us free to adopt whatever judgment reason dictates regarding the cure of diseases. In this department absolute demonstration is impossible, since the physical events in disease are being perpetually modified by a thousand influences which act through the minds of the sick. And, just as we have represented science as commanding assent, so must we speak of faith as soliciting belief. And yet, as the sunshine in the fable cajoled the traveller of his cloak which the storm could not wrest from him, so faith will often exorcise the demon of disease which science had vainly endeavored to cast out.

To determine the limits which should separate science and art is, perhaps, impossible, since the one grows out of the other. Science is the product of art as the crystal is formed in the liquid that holds its substance in solution. Every physician, however humble his attainments, performs a scientific act whenever he compares together the facts of his experience; and he who by generalizing a multitude of facts lays the foundation of a system really does no more. In this process who shall say where art ends and science begins? In truth it is only a question of degree. In the wards of a hospital where the instruction is confined to the elucidation of individual cases, it is just as scientific as in the didactic lectures

in which the attempt is made to present, in a single view, the results of innumerable cases of the same kind in every civilized country, and at every epoch of medical history. Yet we regard clinical medicine as illustrating art, and didactic medicine as representing science. What figure, think you, would the hospital professor make who should come before you with a patient, and be unable to determine with what disease the person was suffering, the organs affected by it, the nature of their functional disturbance, why some functions rather than others were disordered, how these various elements affect the issue of the attack, what that issue will probably be, and finally, what means should be taken to render it favorable? You might be unconscious that the imperfection of his teaching was owing to his ignorance of medical science, but you would feel very sure that it was imperfect and unsatisfactory. Or perhaps you would know that he had not brought the light of scientific generalization to bear upon the obscurity of the case, and you would turn to the instruction you had gained in didactic lectures upon the same subject, and in which all of these relations of the disease were formally considered, illustrated, and explained. In other words, you would endeavor to learn the science of the subject. Having mastered that, you would feel that whether the first example you encountered of that particular disease were more or less like the one submitted by your teacher, you would be able to recognize its nature, anticipate its course, and confidently attempt its treatment. You would also feel that science lifted you upon a height from which you could survey the whole pathological field, and gain clear and accurate ideas unobscured by the details, and the special circumstances of the individual case.

Scientific views, then, are really practical views expanded. To be thoroughly practical in its best sense is to be most truly scientific; to be most highly scientific is to be most perfectly practical. But, you will say, scientific men are seldom practical, and practical men are not usually trained to scientific methods. To which I answer the greatest men are both at once; men of a somewhat lower rank are able to embrace the abstract elements of science only, feeling

repelled by the often wearisome details of observation; in a lower stratum still are they who concern themselves about details alone, and work out from these more or less empirical rules which serve them instead of principles; while the humblest grade of all consists of men but little apt to generalize or reason, and whose chief aim is to learn from scanty compends what is "good" in this or the other disease.

The history of medicine is marked by successive periods in which empirical and scientific methods have by turns prevailed, and a study of them both must satisfy impartial inquirers that neither can be relied upon exclusively to establish principles or to found a method of practice. Of the two the empirical is unquestionably the most fruitful in lasting results; and the successive rise and fall of systems opposed to one another proves that a trust in them as an end, and not as a means, is delusive. Such a delusion in regard to an analogous subject is attributed to the famous Metternich, who for so long a time controlled the political condition and relations of European States. He is reported to have said: "I believe that the science of government might be reduced to principles as certain as those of chemistry, if men instead of theorizing would only take the trouble to observe the uniform results of similar combinations of circumstances." (*Lond. Quar. Rev.*, July, 1872.) But precisely similar combinations of circumstances in the political, as well as in the medical world, are never reproduced, and hence the successive results of observation are never identical, and the laws which they are used to construct can never be applied without modification to individual cases. To what extent they must be modified depends upon the individual who applies them. His natural genius and his acquired skill may make all the difference between their success and their failure in his hands; and hence the same method may produce brilliant results, or altogether fail, according to the skill which directs its application. This skill belongs to the individual, he cannot communicate it to others, and when he dies it perishes. In this view of the subject the influence of the individual, whether teaching orally or by example merely, can hardly be over-estimated,

and therefore it is of the highest importance that he should from the beginning to the end of his pupilage be so educated as to acquire a proper method as well as the habit of research, and so be enabled and incited to pursue his studies throughout his professional career.

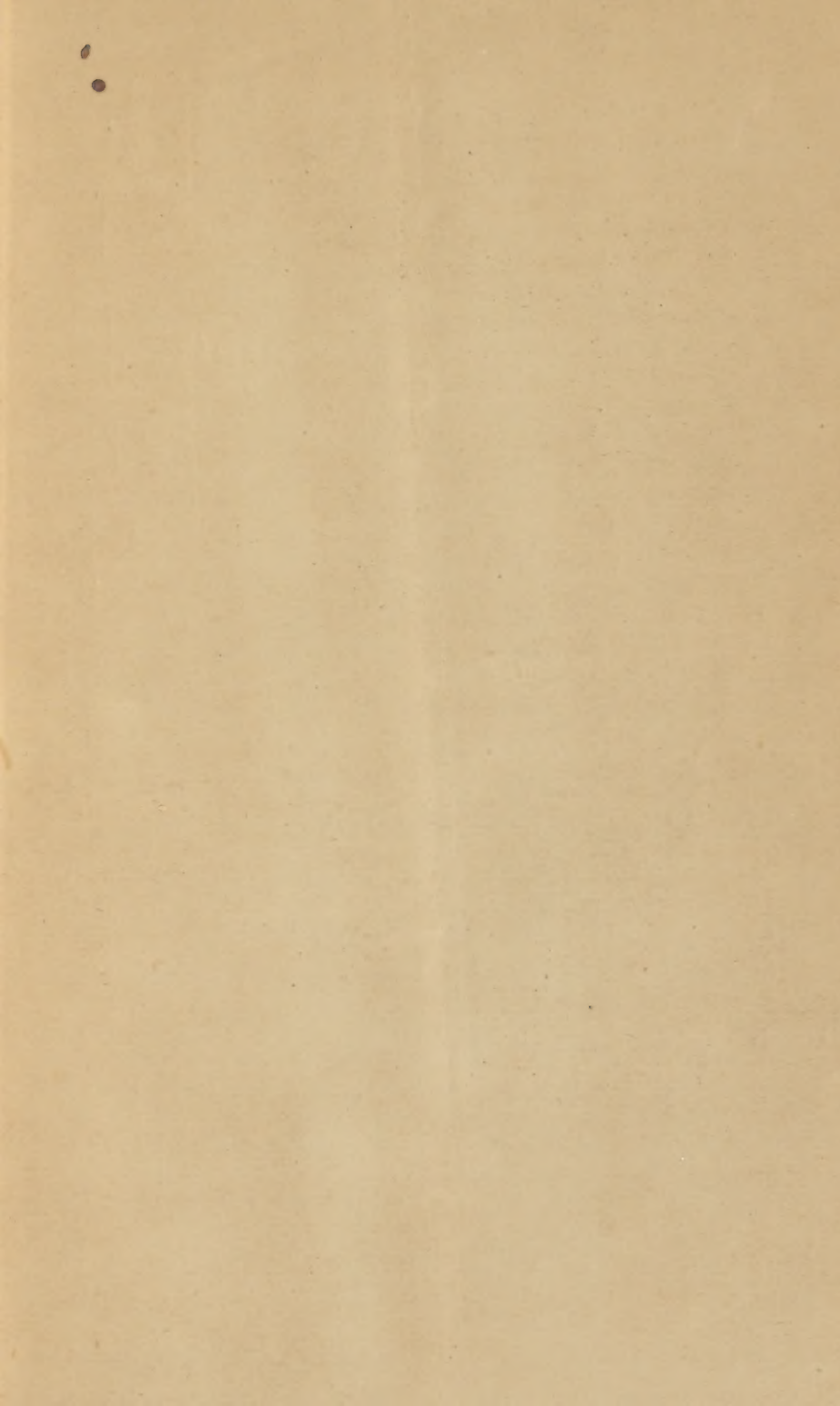
The doctrines I have endeavored to illustrate are simply such as I have many times defended, but there seemed to be a peculiar obligation to take advantage of this occasion to enforce them anew. For now it is that the friends of the University are warmed by the memory of its past distinction, the spectacle of its inauguration in this new edifice, and the hope that it will not long delay to put in practice a system of instruction which is demanded by the example of all foreign and even of some American colleges, and therefore by a regard for its honor as the oldest medical school in the United States. This hope is no longer vague and unfounded; it begins to assume shape and consistence, and to show that it rests upon the firm conviction of a large number of physicians who are among the most accomplished, earnest, and efficient supporters, not of this school alone, but of the still higher school of universal American medicine. They know, and every year they perceive more clearly, that the sphere of medicine is rapidly enlarging, and that an attempt to restrict its study within the old-fashioned term is not only impossible but absurd. They know equally well that the established hap-hazard fashion of studying it, without systematic development and subordination of parts, defeats the very objects of its study, and tends to discourage feeble students and disgust the well-educated. They know that medical pretenders, without honor themselves, are filching honor and health from their deluded victims. They know that in medicine, as in other professions, there is a tendency to cut loose from the principles which have hitherto saved the State from anarchy, and society from dissolution; that every smatterer presumes to pronounce judicially upon subjects he is least acquainted with, and that in the midst of this chaos of crude opinions, this clamorous tumult of the ignorant, the vulgar, and presumptuous, the most precious fruits of human wisdom, and the very foundations of human faith,

are threatened with destruction. From such a catastrophe the only salvation is in more thorough knowledge, whereby truth shall be upheld, and error crushed beneath its feet. In our own profession let us feel very sure that error and fraud are not to be put down by the keenest satire or by the most violent invective; on the contrary, it is their nature to thrive upon whatever brings them more into the light of day, even though it be to set them in the pillory of public contempt. Let them go their ways; but let us endeavor so to exalt our own profession by improving it, that they who may hereafter bear the name of physician shall by that very title be recognized as being thoroughly educated; learned that they may know what has been done before them, solidly grounded also in the science of medicine, before attempting to build upon it the superstructure of medical art, and so enriched by knowledge, that when they go out into the world they may feel assured of securing the confidence of society in themselves, and in the art which they practise.

I have spoken of professional aims and duties, but it must not be forgotten that physicians are also men, and that there is something more to be regarded than the success which may be measured by influence, reputation, or even wealth. How much soever of these it may confer, yet, if they do not tend to give us happiness, of what value are they? Therefore, let it be understood that the culture of knowledge for its own sake, and quite independently of any material reward that it may bring, is in itself a happiness so pure and so high that it may well be doubted if there is any richer source of pleasure upon earth. And it is peculiar in this—it is a pleasure that never fails. The appetite may be satiated, the passions may be consumed in their own fire, but the love of knowledge is an appetite which grows by what it feeds on, and a passion that burns forever. It seems to be the only faculty of the human intellect, as distinguished from the human heart, which faith and reason unite in assuring us must be immortal. Whatever, therefore, may be your material fortune in after life, as a consequence of rightly pursuing your studies here, whether eminent or humble in your professional rank, be very sure that you will

have secured a talisman against despair, or even discontent, in the love of knowledge that your education will have given you.

I have in this discourse held before you, as motives for acquiring a thorough professional education, the love of knowledge, and the happiness it confers; but it must not be forgotten that a still higher motive is to be found in the benefits it will enable you to confer upon your fellow men. This is, indeed, the very reason why the profession of medicine exists. Health is one essential condition of human happiness, for all possessions lose half their value if the ability to enjoy them is wanting. But it is life, as well as health, that will be entrusted to your keeping; life, with its hopes and plans, its loves and friendships, its duties and responsibilities, that will often depend upon your knowledge and skill, and the sense which you may here acquire of the dignity of your office. If your time is misspent in idleness and frivolity, or in pursuing a false method of study, your after life will seem to you a perpetual mistake, will be a life of failure, perhaps mingled with self-reproach, and possibly of disgrace. But if you now devote yourselves to the acquisition of professional knowledge, energetically and systematically, you will be secure of public confidence and professional esteem; and whether you are destined to be eminent leaders in medicine, or merely honorable members of the profession, you will enjoy that reward which is independent of fame and wealth—the consciousness of having done your duty.





UNIVERSITY OF PENNSYLVANIA,
MEDICAL DEPARTMENT.